

REMARKS

Enclosed are copies of Figs. 1 and 2 with requested changes shown in red ink.

Applicant has cancelled claims 8, 10 and 13-14, amended claim 15, and added new claim 16. Accordingly, only claims 15-16 remain in the application. Neither of the claims 15-16 has been allowed.

New claim 16 is somewhat similar to now-cancelled claim 10 which was rejected over Waide alone or in view of Arpin. Claim 16 describes a saucer-shaped stabilizer with a curved outer portion (e.g. 160 in Fig. 2) extending substantially completely around the axis and that rests against the patient's chest.

Waide shows bent legs 3 that each engages the patient along about 60°, for a total of about 120°. Arpin has pads 41, and his Fig. 2 shows that each pad subtends 65° about the actuator axis for a total of 130°. Thus, in Arpin the rest (230°) of the area around the actuator does not distribute forces or help to stabilize the actuator. Neither reference suggests a saucer-shaped stabilizer to stabilize along about the entire 360° around the actuator. It would not be obvious to modify the references to extend about 360°, because they both show straight pads rather than curved pads; to extend about 360° their pads would be very long.

Claim 15 was rejected as obvious over Woudenberg (4,664,098) in view of Barkalow (3,610,233) and Kuroiwa (JP11301484A). Claim 15 describes apparatus for applying compressions to the chest of a patient, such as shown in applicant's Fig. 2. The apparatus includes a cylinder (60) and a plurality of telescoping piston parts (64, 66) that telescope in one another and that are exposed to pressured air in the cylinder. The lowermost piston part (66 and at 66A) has a lower piston inside surface (74) exposed to the pressured air. The lower piston inside surface has at least half the diameter of the inside surface of the cylinder (60). This assures that the actuator can apply a large force to the patient's chest along the entire stroke 90 of the piston.

Woudenberg and Barkalow each shows a chest compressor which includes

a bellows. Kuroiwa shows an actuator for opening and closing a gate, which includes multiple telescoping pistons. His last piston has a diameter (measured in his Fig. 2 as 4.5 mm) which is less than one quarter the inside diameter of his cylinder (18 mm). The fact that the inside diameter of his smallest piston is less than half and even less than one-quarter the inside diameter of his cylinder, means that his actuator cannot apply a high force to the smallest piston. Applicant also points out that an engineer trying to develop a device for compressing a patient's chest would not turn to technology for closing a gate, so Kuroiwa is not analogous subject matter. Barkalow shows a bellows at the end of a piston. This certainly does not provide a more compact device.

As mentioned earlier, patients may be stacked in an ambulance, and an actuator of small height is then very useful. None of the references show a telescoping actuator for chest compressions to reduce the actuator height.

In view of the above, favorable reconsideration of the application is courteously requested. If the Examiner should wish to discuss the application, then the Examiner is invited to call Leon D. Rosen at (310) 477-0578.

Respectfully submitted,



Leon D. Rosen  
Attorney for Applicant  
Registration No. 21,077

10960 Wilshire Boulevard  
Suite 1220  
Los Angeles, CA 90024  
(310) 477-0578



FIG. 1



